## Framing Your Photos: Part 2 - Gary Leete

In Part 1 of this framing series (in the June 2015 newsletter), Gary Leete, framing specialist, fellow BirdLife member, and owner of Melbourne-based company FrameCo, discussed mount cutting and decoration.

Now that you have your photograph hinged and in the mount you're ready to make a frame and finish the job.

## Introduction

There are two sources for obtaining the moulding for making a frame. You can start with a straight piece of timber, and use a home routing system make your own moulding shape with a rebate to take the art work. Alternatively you can pick from a large range of ready finished mouldings available from your local frame shop or hardware store. I recommend the latter; it's easier, the choice is much wider, and it's more cost effective. However, one word of warning: always look for a moulding with a good straight back and not too flat on the surface. If the moulding has a bump or some raised section in the top surface it will cut and join easier than a flat moulding. Most mouldings are made from pine or obeche. These are soft grain timbers which cut and join well. Hard timbers like ramin are more difficult to work with.

## Measuring and Cutting

FrameCo offers a moulding Chop Service which allows you to select the moulding type and size online from their catalogue, then cuts that to the exact size that you require for your image, then sends the four pieces to you in the mail. Most DIY home framers now work this way, but let's explore the process if you wish to cut your own frame moulding.

Firstly, how much moulding will you need? The outside dimensions of the frame are determined by the size of the mounted photograph. Carefully measure the overall size of the matted picture you're framing, adding a little extra (say 3 mm ) for "play" to ensure the picture fits easily into the finished frame.

Add the length and the breadth together, then double the total. This will give you the overall length. But you also have to allow for the mitre cuts, so multiply the width of the moulding by 10 and add this to your total (total length required $=2 \times$ (length + breadth $)+10$ $x$ width of moulding). The 45 degree mitre cuts are most important - a bad cut will never join properly and will always look terrible. There are a number of machines on the market for cutting 45 degree mitres starting with the simple mitre box, radial arm saw with a mitre attachment, or a commercial mitre saw, and the best of those is this Swedish made Nobex Mitre
 Saw.

Cutting one side of a frame is easy. Cutting the second side to be EXACTLY the same size as the first side is the hard part of frame cutting. Using a measuring system you can cut lengths accurately every time. The FrameCo measuring system will attach to any brand of electric or manual mitre saw and will make the cutting of the frames quick and foolproof.

If you have a saw you can cut without using a measuring system. Follow this easy step-bystep guide to cut mitred lengths for your frame:

- Calculate the dimensions of your frame.
- Place the moulding into the saw.
- Cut off a small piece at 45 degrees with the saw in the left-hand position.
- Remove the moulding from the saw.
- With a tape, measure along the back of the moulding, to the length you require.

To this length you have to take into account the size of the moulding you are using. So you add to the length of the side an amount equal to twice the moulding width - not including the rebate. Then make a pencil mark on the back of the moulding near the top so that you can see the mark.

- Put the moulding back in the saw and align the saw blade on the pencil mark.
- Swing the saw around and cut the next mitre.
- Place the two pieces back to back so you can transfer the size you have just cut to the back of the moulding length.
- Repeat the cutting procedure for the other pieces.


## Joining the Frame

To ensure a tight and stable joint, glue should be applied, especially if the frame is large. A light smear of a good quality PVA glue is all that's necessary. Although it is possible to buy clamps that join two corners at a time, it's simpler and quicker to clamp all four corners at once. This allows you to see how the corners match up before gluing and securing the mitres. There are several types of clamps.

Cord Clamp: This simple, but effective clamping system consists of four flexible plastic corners and a length of cord. It only works well for small to medium-size frames, because you cannot pull the cord tight enough to hold the frame steady while joining.

Metal Strap Clamp: This clamping system is more sophisticated and consists of a metal strap, flexible corner pieces and a screw operated tensioning device which allows you to apply a considerable amount of tension so that the corners are pulled together tightly. The Strap Clamp is suitable for large and small
 frames.

Once the frame is clamped together and you've made sure all the corners are aligned, then the mitre joint should be secured or reinforced. Glue alone is not safe and secure enough for most sized frames. Here are some options:

Panel Pins: You can nail a panel pin across the mitre. It is advisable to pre-drill the holes and secure the joint in a vice before hammering the pins into the frame. Punch home the nail head and fill the hole with a coloured woodfiller.

V-Nails: Professional framers use these v-shaped staples, which are inserted using a special manual or pneumatic joining machine. The "PushMaster" is a DIY version of these machines and is suitable for low-volume high-quality framing such as required for photography or portrait framing. It is a FrameCo product made and patented in Australia.

Biscuit Joints: More suitable for large and heavy frames such as mirrors. Most commercial picture frame mouldings are small and a biscuit joint is not necessary.

## V-Nail Joining Machines

There are several models of these machines suitable for the DIY framer or low-volume picture framing. Here are some of the models:

PushMaster: Similar to a large punch, the PushMaster is a handheld, easy to use tool for inserting the v-nails into the back of timber picture frames. The $v$ nail is loaded onto the magnetic end of the PushMaster, sharp end down, then simply pushed into the wood. The v-nail pulls the joint together because it is made from spring steel. The advantage of the PushMaster is that it doubles as a fitting up tool. The magnetic tip can also be used to fit flexipoints and backing nails to secure the picture into the frame.


BenchMaster: The BenchMaster is ideal for the serious DIY framing photographer. The powerful cam action of the handle combined with the heavy duty PushMaster drives vnails into the hardest of timbers. Its gentle hand action suits joining small or odd-shaped mouldings. If you start with FrameCo's PushMaster you can upgrade to the BenchMaster
 at any time.

## V-Nails - How Do They Work?

Upon entering the wood moulding from the base, the sides of the metal v-nail are deflected outwards. As the v-nail pulls back into its original shape this pulls the joint tightly together.

There is a little curl on the outer leading edge of the nail that locks the nail into the grain of the timber. This stops the nail from pulling out of the end of the mitre, keeping the joint stable and secure. The v-nail method of joining is the preferred method of professional picture framers. With a few simple hand tools it's possible to achieve the same result with a minimal outlay in machinery.

## Making Multi-sided Frames

With most good quality suspension type mitre saws there's always the possibility of cutting mitre angles other than 45 degrees. The problem is that the saws do not have a system of measuring the length of the cut. The FrameCo measuring system has a clever scale included with the unit. It allows you to measure a length for any angle. A six-sided frame has the six mitres cut at 30 degrees, while an eight-sided frame has the eight mitres cut at 22.5 degrees. The Measure Mate Scale converts the measuring system into a multi-angled scale so that each one of these different angled mitres can be measured.

So it's possible for the amateur framer to make attractive multi-angled frames that add style and creativity to your framing.

## Finishing and Assembly

With the frame joined and the glue joints dry, you're ready to assemble your mounted photograph into the frame. The PushMaster can also be used to fit backing nails or flexipoints into the frame to hold the picture into the rebate.

Seal the back of the picture with gummed tape or good quality backing tape. The best backing tape to use is a silicone coated tape as this will not peel off over time.

Screw two small O-rings or screw eyes into the side of the frame, approximately one third of the distance down the top of the frame, then attach a length of wire or cord securely through the O-rings or screw eyes. After that, your image is ready to hang on a wall.

Gary Leete, of Frameco, is a professional framer. For further information on any of his DIY picture framing tools contact FrameCo Australia, on 0398731685 or visit their web site: www.clubframeco.com.au. They have a catalogue and lots of helpful information to get you started.

